

REMARKS

Claims 59-71 remain in the referenced application. Claims 59, 61, 62, and 64-71 have been amended. Claims 72-76 have been added.

Claims 67, 68, 70, and 71 stand objected to on the basis that the phrase “may be selected from” is improper. Responsive thereto, Applicant has amended claims 67, 68, 70, and 71 to recite the phrase “are selected from” as suggested by the Examiner. Applicant accordingly respectfully requests the withdrawal of the objection to claims 67, 68, 70, and 71.

Claims 61-71 stand rejected under 35 U.S.C. §112, second paragraph, on the basis the term “about” is indefinite. Responsive thereto, Applicant has amended claims 61, 62, and 64 by removing the term “about” as suggested by the Examiner. Applicant accordingly respectfully requests the withdrawal of the 35 U.S.C. §112, second paragraph, rejection of claims 61-71.

Claims 59 and 62 have been amended to recite adding gas as part of the method for foaming an aqueous solution.

Claims 59-71 stand rejected under 35 U.S.C. §102(b) by Onan et al. (U.S. Patent No. 5,968,879 – hereinafter referred to as Onan). Applicant respectfully traverses the above-recited rejection of claims 59-71.

Onan discloses cement comprised of water, a water soluble polymerizable monomer, a polymerization initiator, an oxygen scavenging agent, a hydratable gelling agent, and a solid filler material. The cement disclosed by Onan may be foamed in place through the addition of a foam stabilizer, which may be an alcohol ether sulfate, and a foam stabilizer, which may be a polymer. Onan however provides no disclosure of a water miscible solvent.

In contrast claims 59 and 62 recite the non-aqueous foamer composition as comprising a water miscible solvent. The claimed non-aqueous foamer composition includes a water miscible solvent as a diluting agent that provides a diluted non-aqueous foamer composition with a separate stabilizing group, thereby lowering the pour point and the viscosity of the non-aqueous foamer composition. Applicant

accordingly respectfully submits Onan does not anticipate claims 59 and 62 because Onan does not disclose a non-aqueous foamer composition including a water miscible solvent.

Claims 60 and 63 recite that the non-aqueous foam may be contacted by contaminants including hydrocarbons, alcohols, brines, hardness ions, acids, bases, and combinations thereof. Applicant respectfully submits Onan does not disclose the contact of the foamed cement with contaminants. Onan discloses water, brine, and water containing certain salts, nevertheless, the water, brine, and water containing certain salts are components of the cement and thus cannot be considered contaminants. Onan certainly does not disclose the contaminants of hardness ions, acids, and bases. Applicant accordingly respectfully submits Onan does not anticipate claims 60 and 63 because Onan does not disclose the contact of the foamed cement with contaminants.

Claims 61 and 64 recite that contaminants may comprise up to 50% of the non-aqueous foam. Onan does not disclose the contact of the foamed cement with contaminants, and Onan certainly does not disclose that contaminants may up to 50% of the foamed cement. Applicant accordingly respectfully submits Onan does not anticipate claims 61 and 64 because Onan does not disclose that contaminants may up to 50% of the foamed cement.

Claim 65 and new claim 73 recite that alcohol contaminants are aliphatic alcohols having less than 7 carbons. Onan does not disclose the foamed cement with alcohol as a contaminant, and Onan certainly does not disclose that alcohol contaminants are aliphatic alcohols having less than 7 carbons. Applicant accordingly respectfully submits Onan does not anticipate claim 65 and new claim 73 because Onan does not disclose that alcohol contaminants are aliphatic alcohols having less than 7 carbons.

Claim 66 and new claim 74 recite that acid contaminants are mineral acids, carboxylic acids, and combinations thereof. Onan does not disclose the foamed cement with acids as a contaminant, and Onan certainly does not disclose that acid contaminants are mineral acids, carboxylic acids, and combinations thereof. Applicant accordingly respectfully submits Onan does not anticipate claim 66 and new claim 74 because Onan does not disclose that acid contaminants are mineral acids, carboxylic acids, and combinations thereof.

Claim 67 recites that mineral acid contaminants are selected from the group consisting of hydrochloric acid, hydrofluoric acid, sulfuric acid, nitric acid, phosphoric acid, boric acid, and combinations thereof. Onan does not disclose the foamed cement with mineral acids as a contaminant, and Onan certainly does not disclose that mineral acid contaminants are selected from the group consisting of hydrochloric acid, hydrofluoric acid, sulfuric acid, nitric acid, phosphoric acid, boric acid, and combinations thereof. Applicant accordingly respectfully submits Onan does not anticipate claim 67 because Onan does not disclose that mineral acid contaminants are selected from the group consisting of hydrochloric acid, hydrofluoric acid, sulfuric acid, nitric acid, phosphoric acid, boric acid, and combinations thereof.

Claim 68 recites that carboxylic acid contaminants are selected from the group consisting of formic acid, acetic acid, propionic acid, citric acid, lactic acid, tartaric acid, glycolic acid, and combinations thereof. Onan does not disclose the foamed cement with carboxylic acids as a contaminant, and Onan certainly does not disclose that carboxylic acid contaminants are selected from the group consisting of formic acid, acetic acid, propionic acid, citric acid, lactic acid, tartaric acid, glycolic acid, and combinations thereof. Applicant accordingly respectfully submits Onan does not anticipate claim 68 because Onan does not disclose that carboxylic acid contaminants are selected from the group consisting of formic acid, acetic acid, propionic acid, citric acid, lactic acid, tartaric acid, glycolic acid, and combinations thereof.

Claim 69 and new claim 75 recite that base contaminants are alkaline oxides, hydroxides, carbonates, amines, and combinations thereof. Onan does not disclose the foamed cement with bases as a contaminant, and Onan certainly does not disclose that base contaminants are alkaline oxides, hydroxides, carbonates, amines, and combinations thereof. Applicant accordingly respectfully submits Onan does not anticipate claim 69 and new claim 75 because Onan does not disclose that base contaminants are alkaline oxides, hydroxides, carbonates, amines, and combinations thereof.

Claim 70 recites that alkaline oxide contaminants are selected from the group consisting of calcium oxide, magnesium oxide, and combinations thereof. Onan does not disclose the foamed cement

with alkaline oxides as a contaminant, and Onan certainly does not disclose that alkaline oxide contaminants are selected from the group consisting of calcium oxide, magnesium oxide, and combinations thereof. Applicant accordingly respectfully submits Onan does not anticipate claim 68 because Onan does not disclose that alkaline oxide contaminants are selected from the group consisting of calcium oxide, magnesium oxide, and combinations thereof.

Claim 71 recites that hydroxide contaminants are selected from the group consisting of sodium hydroxide, potassium hydroxide, ammonium hydroxide, calcium hydroxide, magnesium hydroxide, and combinations thereof. Onan does not disclose the foamed cement with hydroxides as a contaminant, and Onan certainly does not disclose that hydroxide contaminants are selected from the group consisting of sodium hydroxide, potassium hydroxide, ammonium hydroxide, calcium hydroxide, magnesium hydroxide, and combinations thereof. Applicant accordingly respectfully submits Onan does not anticipate claim 68 because Onan does not disclose that hydroxide contaminants are selected from the group consisting of sodium hydroxide, potassium hydroxide, ammonium hydroxide, calcium hydroxide, magnesium hydroxide, and combinations thereof.

New claims 72 and 76 have been added to recite that the non-aqueous foamer further comprises a suspending agent. The non-aqueous foamer includes a suspending agent to suspend the polymer. Onan discloses silica as a filler material that imparts a desired density and/or degree of rigidity to the polymerized composition. The silica disclosed by Onan accordingly forms part of the cement and thus in no way functions to suspend Onan's foam stabilizer. Applicant therefore respectfully submits Onan does not anticipate claim 72 and new claim 76 because Onan does not disclose a non-aqueous foamer composition including a suspending agent.

The prior art made of record has been reviewed by Applicant and is deemed not to anticipate nor render obvious the claimed invention.

In view of the foregoing, Applicant respectfully requests reconsideration of the rejected claims and consideration of the new claims. Applicant further earnestly solicits early allowance of the application.

Respectfully submitted,

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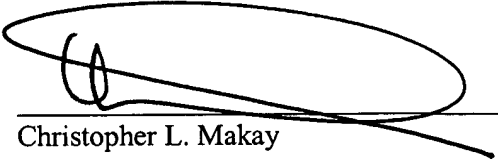
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